

United States Government

Department of Energy

memorandum

RECEIVED
Oak Ridge Operations

DATE: JUL 16 1991

REPLY TO
ATTN OF: EW-922:Ford

SUBJECT: DOCUMENT REVIEW: CLOSURE PLAN FOR LAND DISPOSAL UNIT CPP-40 AT THE
IDAHO CHEMICAL PROCESSING PLANT, IDAHO NATIONAL ENGINEERING
LABORATORY, ERD-102-91

TO: S. A. Mann, Acting Director, Northwestern Area Programs, EM-44, GTN

The subject document was reviewed at the request of the Department of Energy Headquarters. The review addresses areas of environmental restoration (i.e., regulatory compliance, hydrogeology, quality assurance, risk assessment), depending on the type, content, and purpose of the document. Editorial comments have not generally been included.

General comments, recommendations, and suggestions are detailed in the attached comments.

Questions concerning review comments should be directed to Gary Dintsch at 615-435-3106 (FTS 355-3106).

Sincerely,


John S. Ford
Waste Management Division

Attachment

cc w/attachment:
H. Davidson, HAZWRAP
G. Dintsch, HAZWRAP
L. Green, DOE IDO
R. Kaltrieder, EH-222
J. Lehr, GTN, EM-442
J. Petty, HAZWRAP
O. Robertson, GTN, EM-422
W. Sato, DOE IDO
W. Wisenbaker, EM-43, GTN

**DOCUMENT REVIEW: CLOSURE PLAN FOR
LAND DISPOSAL UNIT CPP-40
AT THE IDAHO CHEMICAL PROCESSING PLANT
IDAHO NATIONAL ENGINEERING LABORATORY, ERD-102-91**

MAJOR CONCERNS:

1. According to Sect. 5, radionuclide analyses results are not yet available. The report, on multiple occasions, states that no radiological contamination above background was found. This inconsistency should be corrected or clarified.
2. The primary objectives stated in this document were to be met, according to the first sentence in the fourth paragraph of the Executive Summary, by drilling a single borehole to the alluvium/basalt interface and performing the appropriate sampling and analysis. If the selected borehole location is not the correct location, then the nature and extent of possible contamination and the risk to human health and safety or the environment would not be accurately determined by sampling the single borehole.

GENERAL COMMENTS:

1. No rationale was ever given as to why the tank and drain lines were not removed. Without this physical removal, there is some question as to the validity of the data supporting this Closure Plan or, at least, the representativeness of the samples collected. There is some question as to whether the regulatory agency will give acceptable closure now and removal of any apparatus later. Also, information concerning the structural integrity of the neutralization pit is not provided in the report. The possibility of releases from other locations in the neutralization pit is not addressed in the sampling plan. Please justify not addressing the condition of soils beneath the neutralization pit.
2. This document is unclear with regard to the description of this unit and the configuration of the discharge pipe. Photographs and/or more descriptive drawings would clarify this problem.
3. This Plan is not dated or identified as a draft, final, or otherwise. We suggest including such identifiers.
4. Sections 1.3 and 1.4 appear to be outdated. The sampling and analysis discussed are presented as though they are planned, but the results are included in this document.
5. Please consider adding an acronym list.

SPECIFIC COMMENTS:

1. Executive Summary, p. iii, first paragraph: We suggest including any language from the Consent Order and Compliance Agreement that provides requirements for the content of this Closure Plan.

2. Executive Summary, p. iii, third paragraph: The first two sentences conflict regarding release of chemicals other than hydrofluoric acid to this unit. Lack of documentation does not eliminate the possibility of releases. We suggest clarifying these statements.
3. Executive Summary, p. iii, fourth paragraph, line 10: "UTL" should be defined as upper tolerance limit.
4. Executive Summary, p. iv, second paragraph, third sentence: A "recommendation" for closure appears inappropriate for this document. We suggest using the term "proposal" instead.
5. Section 1.1, p. 1, second paragraph: This paragraph describes three lines entering the unit, one of which is a vent line. We suggest explaining what the vent line is and what it is venting.
6. Section 1.1, p. 1, second paragraph, last two sentences: This paragraph includes a description of a sludge removal operation in 1990. However, sampling or analytical results for the removed material are not included or referenced. Such data could assist in understanding the characteristics of the water involved in the operation of this pit.
7. Section 1.2, p. 1, fourth sentence: Use of the phrase "primary objectives" implies that other secondary objectives will be discussed. Because none are presented, we suggest changing this phrase.
8. Section 1.4, p. 5: "Below regulatory concern" is not terminology accepted by the Environmental Protection Agency and should be replaced.
9. Section 2.1, p. 6, third paragraph: Please include any information that may further clarify the textural nature of the basalt formations (i.e., extent of fracturing, orientation of fractures, porosity, etc.) that underlie the unconsolidated alluvium. This information will help to assess hydraulic properties of the chief water-bearing unit beneath the site.
10. Section 3.2, p. 7, first paragraph: Additional information concerning the Big Lost River Aquifer would be helpful to assess potential impacts of releases from Land Disposal Unit Chemical Processing Plant (CPP)-40. Please clarify the geologic unit that comprises the Snake River Aquifer, including upper, lower, and lateral boundaries. The reported depth to the water table suggests that the aquifer is an unconfined aquifer, yet perched groundwater zones and laterally continuous silt and clay layers are reported, which suggest confining conditions. Please specify whether the aquifer is a confined or unconfined aquifer. Also please specify the source of recharge to the aquifer.
11. Section 4.2, p. 8, first paragraph: It is reported that "no radiological contamination was found above background at the CPP-40 site during site characterization field activities." Please provide background levels and monitoring results for verification.
12. Section 5.1, p. 8, third and fourth paragraphs: We suggest including appropriate references to the lists of specific analytical parameters when identifying general constituent categories [Resource Conservation and Recovery Act (RCRA) metals, volatile organics, etc.].

13. Section 5.1, p. 8, fourth paragraph: According to the analytical results in Sect. 5.5.2, the first soil sample beneath the discharge pipe was also tested for fluoride. We suggest including fluoride in this list.
14. Section 5.4, p. 14, first paragraph: The report indicates the presence of hexanol in some of the soil samples because the compound is a suspected solvent preservative. Please indicate whether this compound was detected in any of the blank samples or whether the laboratory routinely uses this compound in a manner that can affect analytical results as a justification of this rationale.
15. Table 5-1, p. 15: We suggest filling in the blank spaces for fluoride with an appropriate explanation, such as "not analyzed."
16. Section 6.0, p. 19, fourth paragraph, last sentence: A "recommendation" for closure appears inappropriate for this document. We suggest using the term "proposal" instead.
17. Appendix D: We suggest including appropriate references to the lists of specific analytical parameters when identifying general constituent categories (RCRA metals, volatile organics, etc.).